CENTRE OF STUDIES BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING UNIVERSITI TEKNOLOGI MARA

PREVENTION METHODS ON THE LANDSLIDE HAZARD IN MALAYSIA

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Bachelor of Building Surveying (Hons)

2012

ACKNOWLEDGEMENT

Alhamdulillah, all prays to Allah the Al-Mighty for the blessing and opportunity bestowed upon completing my final project. First of all, I would like to express my appreciation and millions thanks to my supervisor, Sr Mahayudin Mahmood for his continuous guidance and courage in helping me preparing this dissertation as well as completing this final project, BSB 658. His guidance and advices throughout the whole process of writing this dissertation are much appreciated.

Deeply grateful to my beloved parents and my family for the encouragement and motivation during this completion of dissertation. Their support, advice and financial helps are very helpful.

Extended million thanks and appreciation to many individuals who had provided many information of landslide during my visit to Collection Data Center. First, Public Worker Department from Kolej Ikram; En Abd Razif Abd Malek, Geotechnical Engineer; En. Azfar Rafie Abu Bakar, Engineering Geologist and En Hazman Ahmad, Assistant Engineer. I also would like to wish many thank to individuals from Mineral and Geoscience Department Malaysia (JMG); En. Mohd Zam Bin Hamid, Geology Assistant and Puan Siti Fatimah Bt Othman, Assistant Officer. Not to forget, many thanks to Public Worker Department from Jabatan Kerja Raya, Cawangan Kejuteraan Cerun (JKRCKC), Mohd Noor Nasriq Bin Mohd Hudal. All information provided are very useful in processing finding and analysis of this dissertation.

ABSTRACT

This study is focus on landslide issues in Malaysia. Landslide is a common

geographical term for the occurrence of natural disaster regarding the Earth's particles

and movement. It is well-known over its process that often causes a downward and

external of slope-farming materials. Landslide may occur in many forms due to

natural and anthropogenic (human) factors. Landslides can create permanently

unstable sites that cannot be repaired or developed, and as a result, can cause severe

economic and social consequences for families and communities. Human activities

disturb large volumes of earth materials during the construction of buildings, roads

and other infrastructure, and thus have been a major factor in increases in damage due

to slope failures. Population migration pressure may also increase the vulnerability to

social and economic consequences. There are various direct methods of preventing

landslides. The suitable and most effective prevention method will be discussed.

This dissertation have included seven chapters where discuse overall of the

causes, factors, prevention method used, and problems identification. The research

data will gather from social workers specifically from The Public Works

Department(PWD) and Public Works Institute(IKRAM), Mineral and Geoscience

Department Malaysia and Jabatan Kerja Raya, Cawangan Kejuteraan

Cerun(JKRCKC). The analysis and finding will be gathers through interview session

with the engineer and related individuals. On the whole, the conclusion and

recommendations will be provides to support this dissertation.

Keywords: Landslide, slope failures, slope factors, prevention methods

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CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

Recently there have been many occurrences of landslides in Malaysia. Landslides pose a recurrent hazard to human life and livelihood in most parts of the world, especially in some regions that have experienced rapid population and economic growth. Globally, landslides cause billions of ringgits in property damage and thousands of deaths and injuries each year (JKR 2009).

In Malaysia, landslides are the most destructive disaster besides flood. Landslides are rock, earth, or debris flows on slopes due to gravity. While slope is a surface or piece of land that goes up and down or surface due to gravity. It is a geological phenomenon which includes a wide range of ground movement, such as rock falls, deep failure of slopes and shallow debris flows, which can occur in off shore, coastal and on shore environments.

Where the landslides always occur? They usually start on steep hillsides as shallow landslides that liquefy and accelerate to speeds that are typically about 10 miles per hour, but can exceed 35 miles per hour.